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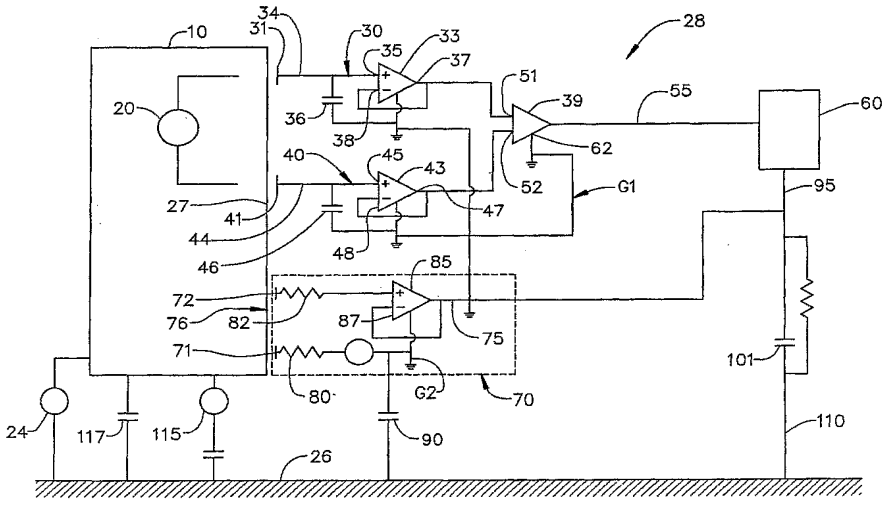
(54) **Title:** A SENSOR SYSTEM FOR MEASURING AN ELECTRIC POTENTIAL SIGNAL OF AN OBJECT



(57) **Abstract:** The invention generally pertains to reducing artifact noise signals present when non-invasive capacitive-type signal measurements are taken of static electric fields produced by an object (10) of interest. According to a first preferred embodiment of the invention, a given static artifact signal is reduced by minimizing the potential difference between a ground point (G1) of sensor circuitry and the potential of the object (10). According to a second preferred embodiment of the invention, the change in signal due to motion of the sensor (30, 40; 30', 40'; 230; 330; 430; 530; 630) in the field produced by the object (10) is minimized by reducing the impact of changes in coupling to the signal source.

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